NTMWD’s Water Supply Update

Sierra Club Cross Timber
March 23, 2015

“Regional Service Through Unity ... Meeting our Region’s Needs Today and Tomorrow”
TOPICS

• Looking Back.....
• Where are we now.....
• Looking forward.....
LOOKING BACK
History of NTMWD

From our founding 10 Member Cities:

“We decided we were all in this together. We couldn’t do it separately.”

- 1951 - Created by Texas Legislature to Provide Water Service
- 1956 - Began Providing Treated Water
- 1970s - Expanded to Wastewater Service
- 1980s - Expanded to Solid Waste Service
Excerpts from *Gift of Water, Legacy of Service*

**Population Growth**

“...an outburst of suburban growth that would rank the area, over much of the next quarter-century, among the fastest-growing in the nation.”

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<tbody>
<tr>
<td>Garland</td>
<td>10,291</td>
<td>38,501</td>
<td>81,437</td>
<td>138,857</td>
<td>180,635</td>
<td>215,768</td>
<td>226,876</td>
<td>231,700</td>
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<tr>
<td>Mesquite</td>
<td>1,684</td>
<td>27,526</td>
<td>55,131</td>
<td>67,053</td>
<td>101,484</td>
<td>124,523</td>
<td>139,824</td>
<td>142,210</td>
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<tr>
<td>Plano</td>
<td>2,115</td>
<td>3,695</td>
<td>17,872</td>
<td>72,331</td>
<td>127,885</td>
<td>222,030</td>
<td>259,841</td>
<td>269,330</td>
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**NTMWD Historical / Projected Population**

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<tr>
<td>Area Population</td>
<td>32,000</td>
<td>60,000</td>
<td>200,000</td>
<td>800,000</td>
<td>1,600,000</td>
<td>2,500,000</td>
<td>3,700,000</td>
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Providing Reliable Basic Services Have Provided Regional Growth

- “Fastest growing cities in the U.S.”
  - Frisco, McKinney
- “Best Texas cities to raise a family”
  - Allen, Frisco, McKinney, Richardson, Rockwall, Wylie
- “McKinney #1 Best Place to Live in America”
  - Money Magazine, 2014
- “Best suburb for education in America”
  - Plano
- “Best cities for first-time home buyers”
  - Allen, Frisco, Plano, McKinney, Richardson, Garland
NTMWD’s Trifecta … led to toughest watering restrictions in the region

**CONCERNS**

1. Denied Access
   - Loss of 28% Water Supply

2. Long-Term Drought

3. Regional Growth

**SOLUTIONS**

- Texoma back online
- Rain to replenish reservoirs
- New norm of conservation
- Water Plan to develop water supply to meet growth demands
WHERE WE ARE NOW
## NTMWD Reservoir Elevations
*(Updated March 22, 2015)*

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Conservation Pool Elevation</th>
<th>Current Elevation</th>
<th>Down</th>
<th>% of NTMWD’s Remaining Supply</th>
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</thead>
<tbody>
<tr>
<td>Lavon</td>
<td>492.0’</td>
<td>486.26’</td>
<td>-5.74’</td>
<td>100</td>
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<tr>
<td>30%</td>
<td>(Last full on 5-14-12)</td>
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<tr>
<td>Chapman</td>
<td>440.0’</td>
<td>437.42’</td>
<td>-2.58’</td>
<td>70</td>
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<td>15%</td>
<td>(Last full on 4-14-10)</td>
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<tr>
<td>Tawakoni</td>
<td>437.5’</td>
<td>430.72’</td>
<td>-6.78’</td>
<td>88</td>
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<tr>
<td>8%</td>
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<tr>
<td>Texoma</td>
<td>617.0’</td>
<td>613.22’</td>
<td>-3.78’</td>
<td>97</td>
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<tr>
<td>28%</td>
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Stages:
1 – 4/19
2 – 8/1
3 – 11/1

Stages:
3 Enh – 1/26
2 – 6/1

Stages:
3 – 6/1

Lake Elevations by Month

March 22, 2015

Stage 3 (478')
Stage 4 (475')

Elevation drop does not include flood pool > 492'
Anticipated Drought Plan Action for April 2015

• NTMWD to continue Stage 3 – ONCE every TWO week watering April – May
Anticipated Drought Plan Action for June - October 2015

• NTMWD to monitor continued increases in water supply capacities

• June 1, initiate an improved watering schedule
LOOKING FORWARD
2012 State Water Plan for NTMWD

Figure 4E.8
Recommended Water Management Strategies for North Texas Municipal Water District

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<tr>
<th>Year</th>
<th>Demand and Supply in Acre-Feet per Year</th>
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<td>2010</td>
<td>200,000</td>
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<td>2020</td>
<td>400,000</td>
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<td>2030</td>
<td>600,000</td>
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<td>2040</td>
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<td>2050</td>
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<td>2060</td>
<td>1,200,000</td>
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Legend:
- Toledo Bend Phase 1
- Marvin Nichols
- Additional Lake Texoma
- Lower Bois d'Arc Creek Res.
- Main Stem PS
- Renewed interim GTUA
- Conservation (Wholesale Customers)
- Upper Sabine Basin
- Interim GTUA
- East Fork Reuse
- Lake Bonham
- Wilson Creek Reuse
- Lake Chapman
- Lake Texoma
- Lake Lavon
- Currently Available Supplies - Losses
- Projected Demands + Losses
Proposed
Lower Bois d’Arc Creek Reservoir

First major reservoir to be constructed in Texas in the last 30 years
Three Purposes of the Reservoir

Vital New Source for Fannin County & NTMWD

• Provide water for Fannin County

• Supplement water supply for NTMWD Member Cities & Customers through 2040

• Provide recreational opportunities
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<td>Pipeline, Pump Station &amp; WTP Design</td>
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<td>Reservoir Impoundment</td>
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<td>Delivering Water</td>
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LBCR Overall Timeline
We need this Reservoir!

The growth that ranked NTMWD’s service area among the fastest growing regions in the nation for the past 50 years is projected to continue for the next 50 years.

- First in Texas in 30 years
- Meets our growth needs through 2040
Effective Measures

- Water Conservation Plan
- Drought Contingency/Water Emergency Response Plan
- Regional Coordination for like strategies

- Limiting outdoor watering very effective
- Continuing smart water use practices once the drought ends
- Use BMPs for landscape design, irrigation systems, plant selections that promote water efficiency at the forefront of projects
What Can Consumer Do?

- Actively follow water conservation and efficiency BMPs
- Adhere to drought management strategies
- Promote water efficient tools and resources to local associations affiliated with (HOAs, Civic and Local groups, Boy/Girl Scouts etc.)
- Educate your family members/employees to actively engage in water conservation/efficiency practices daily
www.water4otter.org